

SOUTHERN PACIFIC COMPANY



SHASTA DIVISION SPECIAL INSTRUCTIONS

No. 8

EFFECTIVE SUNDAY, FEBRUARY 9, 1958

AT 12:01 A. M.,

PACIFIC STANDARD TIME

SUPERSEDING SPECIAL INSTRUCTIONS No. 7

THESE INSTRUCTIONS CONSTITUTE A PART
OF THE TIMETABLE CURRENTLY IN
EFFECT

W. D. LAMPRECHT,
General Manager.

E. D. MOODY,
J. A. McKINNON,
Assistant General Managers.

C. H. GRANT,
General Superintendent of
Transportation.

J. M. HATCHER,
Superintendent of Transportation.

A. W. KILBORN,
Superintendent.

Ⓞ This symbol indicates change, except changes on
rating of engines pages are not so indicated.

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

⊙**RULE A.** Transportation Department rule revisions from December 1, 1951 to and including April 1, 1957 are shown on pages 1 and 2 of the Rules and Regulations of the Transportation Department. Employees must have revised pages covering these revisions in their copy of the Rules and Regulations of the Transportation Department.

RULE M. Employees are warned that it is dangerous to ride on top or side of cars while passing points where impaired clearance exists, and that they must protect themselves from injury. See list of impaired clearances on main track and siding.

There are numerous other structures with impaired clearance on yard and station tracks on the division, and employees must be familiar with their location and avoid personal injury.

RULE 7-B. Yardmen must use green flag by day and green light by night in giving proceed signals for movement of trains and engines entering or leaving yards at Dunsmuir Yard, Dunsmuir, Ashland, Klamath Falls Yard and Klamath Falls.

⊙**RULE 10-J.** Speed signs prescribing an increase in speed will not be installed on branches. Speed Restrictions tables will indicate permissible speeds between mile post locations named.

⊙**RULE 19.** Certain passenger cars have supplemental roof-line markers in addition to side electric markers. When such cars are on rear of train, the supplemental markers must be lighted by day as well as by night and duplicate the display to the rear of side electric markers.

RULE 102. Should a passenger train break in two or an emergency application of brakes occur while in motion on grade, head brakeman will immediately go towards rear, close angle cock at opening if train has parted, set hand brakes, and turn up retaining valves on detached portion. After train is coupled air must be applied from engine before hand brakes and retaining valves are released.

If necessary to leave detached portion on main track, rear truck of detached portion ascending grade or lead truck of detached portion descending grade must be blocked or chained in such manner as to derail car should there be an uncontrolled movement.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

PUSH BUTTONS

Where signal protection is provided for movements from an adjacent track to main track, push buttons and lights are installed in box near each of the two signals, with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Train on main track to let train on siding pass may clear signal on siding by pressing button bearing number of signal on siding until light appears. Train on siding to let train on main track pass should not pass Approach Circuit sign, but when necessary to do so, may clear signal on main track by pressing button bearing number of signal on main track.

Further instructions posted inside push button box.

ELECTRIC SWITCH LOCKS

Where electric switch locks are installed, lock-box door must not be opened if movement is to be made into a track leading from main track until engine or car is standing within 150 feet of the switch; or if movement is to be made from such track, or through a crossover to a main track, until block indicator indicates block clear on opposite track. Within CTC limits train dispatcher's permission must also be obtained before lock-box door is opened.

After lock-box door is opened lock lever cannot be moved to opposite position to release switch for hand throwing until indicator in lock-box indicates "unlocked".

Lock lever must not be returned to locked position until all movements over the switch are completed, switch returned to normal position and locked, (except at both crossovers opposite train-order office and Siskiyou main track at Black Butte, where lock levers must be returned to normal position after switch is reversed). After movements are completed switch must be returned to normal position and locked. Lock-box door must then be closed and locked. Within CTC limits, train dispatcher must also be notified by telephone when completed.

When block indicators indicate "block occupied", instructions posted inside lock-box for operation of push button to start time-release must be complied with if movement is to be made to main track while approach circuit is occupied by another train, in addition to providing flag protection when necessary.

Low type electric locks, such as are applied direct to lever of hub type switch stands, function as above except that the removal of the switch padlock has the same effect as opening the lock box door. Instead of being equipped with an "unlocked" indicator, these locks have a pilot light that indicates by illumination when the lock is unlocked.

When pilot light will not illuminate to indicate electric lock is unlocked, push button on adjacent cast iron box, protected with cover and locked with switch lock, should be depressed to illuminate green light. After a time interval of from one to seven minutes pilot light on electric lock will be illuminated, indicating lock is unlocked.

Emergency lock release to be used only in case of electrical or mechanical failure, as indicated by failure of time-release to function after several minutes. When necessary to break seal on emergency lock release, train dispatcher must be notified immediately, and movement made only after flag protection provided on both tracks.

CENTRALIZED TRAFFIC CONTROL

RULE 763. Light engines which originate and terminate within CTC limits need not display indicators, white lights or flags as provided for in Rules 21-A, 21-B and 21-C.

GENERAL REGULATIONS

RULE 824. At terminals where instructions require application of hand brakes on freight trains, outgoing crews must not release hand brakes until road engine is coupled and brake system charged.

RULE 827. When train handling logs (except in gondolas) takes siding to meet an opposing train or allow a following train to pass, such train must be thoroughly inspected to see that proper clearance exists to insure safe movement for the expected train, and no movement of train on siding attempted until expected train has passed.

Between sunset and sunrise, two Dietz lanterns must be placed on rear of caboose (except when helper engine is placed behind caboose) and trainmen must observe track for fallen logs.

RULE 836. When necessary to shove cars ahead of engine between stations on descending grade, cars must be chained to the engine unless air brakes are operative on all cars and air cut in.

AIR BRAKE RULES

RULE 3. On engines of DP-5, 6, 8, 9, 10 and 11 classes the safety valve in the discharge pipe must be set at 185 pounds.

Standard brake pipe pressure for No. 377 (PCE) and No. 378 (PCE) is 90 pounds.

RULE 13. Should all power units of an engine running light or while handling train become inoperative on a grade, light engine or train, after stopping, must be immediately secured with hand brakes and engine wheels secured by blocking or chains.

RULE 17. Engines used as helpers and placed at or near rear of freight trains with dynamic brakes in operation on head end, will use dynamic brakes on descending grades. Additional tonnage in the same ratio per unit as specified for road engine may be handled without retaining valves.

Trains handled by DF-120 to 126 class engines must not use more than three units of dynamic brakes. Dynamic brake cable must be removed between third and fourth units in direction of movement and unit selector switch on lead unit placed in No. 3 position.

PASSENGER TRAINS

RULE 38. Rear-end air test need not be made at Gerber, Dunsmuir and Klamath Falls if continuity of brake pipe is not disturbed. Incoming engineer will apply brakes when train is stopped. At Gerber and Dunsmuir outgoing engineer will release them.

At Klamath Falls car inspector will note that rear brakes on train apply, then signal outgoing engineer to release brakes, noting that rear brakes of train release.

MISCELLANEOUS

5. Helper service:

- (a) Helper engines must not be placed behind wooden underframe equipment.
- (b) Helper engines consisting of not more than two units may be placed behind caboose.
- (c) Helper engines consisting of not more than four units may be placed immediately ahead of caboose.
- (d) Helper engines must not be placed behind trailer-flat cars (SP 510500 to 510649) when such cars are handled in the rear ten cars of a train.

Air will be cut in on all helper engines, and engines must not be cut off when train is in motion.

24. Rotary snow plows will not clear certain structures, tunnels and cuts with wings extended; be governed by instructions posted in rotary cab.

Rotary snow plows must come to stop when train or engine is passing on adjoining track.

Flangers operating in snow territory must raise flanger blades and stop while train or engine is passing on adjacent track.

27. Should a passenger train be stopped in a tunnel, air conditioned cars within the tunnel must immediately have the air conditioning systems, including ice engines and engine generators, shut off, fresh air intake shutters closed, and blower fans shut off.

Should a train be stopped with the engine in a tunnel and it is found that, in the case of a passenger train it cannot be moved within five minutes after stopping, and in case of a freight train it cannot be moved within a reasonable length of time, trainmen and enginemen must take necessary precautions to prevent movement. Independent brake and sufficient hand brakes must be immediately applied. Engine wheels must be secured by blocks and chains, and power plants and steam generators, if any, on engine shut down.

28. DF and DP class engines when moving without cars must, when possible be operated from cab in direction of movement, except for short direct movements.

DF-1 to 12 and DP class engines operated with engineer in other than lead unit in direction of movement, must not exceed 20 MPH when approaching highway or street crossing at grade, subject to further restrictions imposed by local conditions.

SPEED RESTRICTIONS FOR ENGINES: Maximum speed shown below is subject to further restrictions applicable to certain territories as shown in Speed Restrictions for Trains:

NOMINAL CLASS	RUNNING FORWARD		RUNNING BACKWARD WITH TRAIN OR LIGHT
	WITH TRAIN	LIGHT	
DF-1 to 12, except.....	65	65	*30
6194, 6195, 6230, 6231, 6240, 6247, 6254, 6270 to 6283, 6286, 6288, 6293, 6300, 6301, 6307 to 6311, 6317, 6321, 6328, 6351, 6357, 6360, 6365, 8094, 8146, 8166, 8168, 8170, 8172 to 8174, 8178 to 8182, 8195, 8200, 8202, 8203, 8207, 8208, 8213, 8220, 8229, 8231, 8233, 8241, 8245, 8250, 8254, 8255, 8257.....	***55	55	*30
6190 to 6193, 6202, 6203, 6206 to 6211, 6214 to 6219, 6222 to 6229, 6232 to 6239, 6378 to 6382, 6384, 6385, 6387 to 6392, 6394 to 6405, 6440 to 6445, 6447, 6450, 6451, 6455 to 6457, 8090 to 8093, 8102, 8103, 8106, 8107, 8109, 8110, 8115 to 8117, 8119, 8122 to 8126, 8130 to 8133, 8138, 8139, 8290 to 8303.....	70	70	*30
6383, 6386, 6393, 6446, 6448, 6449, 6452 to 6454, 8095, 8108, 8111, 8114, 8118, 8127 to 8129, 8134 to 8137.....	79	79	*30
DF-100, 114 (5288, 5289), 115, 119, 123, 126.	65	65	**65
DF-114 (5279 to 5287, 5290 to 5293), 117.....	55	55	**55
DF-116, 118, 120, 121, 122, 124, 125.....	70	70	**70
DF-101 to 112.....	60	60	**60
DF-200 to 206.....	55	55	**55
DF-300 to 306.....	65	65	**65
DF-307.....	60	60	**60
DF-500, 501.....	70	70	**70
DF-603, 606.....	70	70	**70
DF-605, 607, 611.....	65	65	**65
DF-608, 609.....	75	75	**75
DF-610.....	65	65	**65
DP.....	79	79	*30
DS-1, 4, 5.....	45	45	45
DS-2, 3, 6 to 12.....	60	60	60
DS-100 to 108, 110, 111, 113 to 115, 117 to 122.	60	60	**60
DS-109.....	65	65	65
DS-200, 201.....	35	35	35
SP&SRy DE (Units No. 850 to 869 and 200 to 213).....	65	50	40
WPRR D-239, 913 to 924.....	65	60	50
GNRy GP-7 and GP-9.....	65	50	40
Any engine not listed.....	35	35	25

*When on head end of train or running light and engineer is in other than leading control cab in direction of movement.

**When operated in multiple unit control with engineer in other than lead unit in direction of movement must not exceed 30 MPH.

***May operate at maximum speed of 60 MPH when handling No. 377 (PCE) and No. 378 (PCE).

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

⊙ Maximum speed of steam engines under following conditions, running under own steam, or hauled in train:

When all weight has been removed from any one pair of drivers.....	20 MPH
When all weight has been removed from only one wheel of any pair of drivers.....	30 MPH
When engine truck is removed.....	20 MPH
When main rod only is removed.....	30 MPH
When side rod only is removed.....	30 MPH
When both main and side rods are removed....	20 MPH

Maximum speed of trains handling dead SPCo engines of S or SE class 20 MPH; other steam engines 40 MPH; and diesel engines the speed shown for same engine running forward light, except DS-200, 201 class must have traction motor brushes removed and speed restricted to 30 MPH.

Dead diesel engines hauled in train and weighing 150,000 pounds or more must be placed first behind engine handling the train. If weight is less than 150,000 pounds dead diesel engines must be placed near rear of train.

Dead steam engines hauled in train and weighing 150,000 pounds or more on drivers must, as far as practicable, be cut in between 25 and 30 cars from the head end of the train but in no event less than 8 cars from engine handling the train. If weight is less than 150,000 pounds on drivers dead steam engines must be placed near rear of train.

Unless otherwise restricted, two dead steam engines may be coupled together for movement. When necessary to separate them, or when an S or SE class and a road steam engine are moved dead in train, a steel underframe freight car must be placed between them, and S or SE class engine entrained with tender ahead.

Dead or disabled engines, and equipment listed in timetable which requires movement at reduced speed must first be reported as ready to move to the chief train dispatcher, who will designate the train in which the engine or equipment is to be moved. Any such engine must not be handled in train until train-order designating maximum speed is issued.

Movement of foreign line engines, in service or dead in train, must not be authorized until provisions of current Line Clearance Circular have been complied with.

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MPH MAIN TRACKS ON BRANCHES
Double or triple loads.....	..	25
Scale test cars.....	40	30
Cars with arch bar trucks.....	40	30
Steel pile-drivers.....	40*	30*
Relief outfits with steam derrick, except:..... (Relief outfits 7014 and 7025 must not be operated on any branch).	35*	25*
Power shovel on own wheels.....	35*	25*
Ditchers on own wheels, except:..... SPMW-4044.....	25*	25*
Car-top ditchers, if blocking and tie-down cables are removed.....	35*	25*
K&J pedestal or center-hinged air-dump cars (except SPMW 5100 to 5289 loaded or empty)	35*	25*
Locomotive cranes:		
With boom disconnected, heavy end forward	35*	25*
With boom disconnected, light end forward.	20*	15
With boom in place, either end forward.....	25*	15
Rotary snow plows.....	25	15

*These speeds must not be exceeded, and on curves where authorized speed is more than 15 MPH speed must be reduced to 5 MPH less than shown in timetable and on speed signs.

OTHER MAXIMUM SPEEDS

	MPH PASSENGER TRAINS	MPH FREIGHT AND MIXED TRAINS
Foreign steel-wheel cars not equipped with high speed trucks.....	60	55
Trains of deadhead equipment, with caboose..	55	..
Passenger trains, with caboose.....	55	..
Engine and caboose only, except:..... must not exceed speed for same engine running forward light.	..	55
Engine, flanger and caboose only, except:.....	..	40
On curves.....	..	30
Logs loaded on flat or logging cars, except:...	..	25
On curves.....	..	20
Through truss bridges, tunnels, and passing stations.....	..	15

SPMW cars equipped with K type brakes must not be handled in trains consisting of more than 50 cars and train must not exceed 40 MPH while handling such equipment.

All cars handled in passenger trains must be equipped with steel-tired or all-steel wheels. Cars not so equipped must move in freight trains, passengers if any, to move on passenger trains.

Passenger carrying cars, baggage, express and other head-end cars, unless equipped with steel center sills and steel platforms must not be handled in passenger trains except on authority of Superintendent.

When foreign steel-tired or all-steel wheel cars are picked up at points where no car inspectors are on duty, conductor must contact train dispatcher to determine applicable speed restriction for the movement.

Freight cars must not be handled behind occupied passenger carrying cars, except in mixed trains in military or naval movements.

Baggage, express, mail, refrigerator or other head-end cars must not be handled on rear of passenger trains unless trainmen can pass through them.

Where mail, papers, or ice are to be dispatched from passenger trains at points where train does not stop, slow down sufficiently to permit safe dispatch without hazard, and stop at such stations for this purpose if train is moving on adjoining track between passenger train and point of exchange.

⊙ When moving against current of traffic, or when movement is not protected by block signals, speed of passenger trains and light engines must not exceed 59 MPH, and speed of freight trains must not exceed 49 MPH, nor may speed exceed that applying to normal operation. Unless proceed signal received, or it is known that warning devices are operating, such trains and engines must stop approaching road crossings where automatic warning devices are installed, and may proceed after member of crew protects crossing.

SPECIAL INSTRUCTIONS—REDDING SUBDIVISION

RULE 10-J. Speed signs to left of track:			
Eastward	Reading	Westward	Reading
MP 270.25	65-50	MP 224.58	25
MP 285.18	50	MP 244.49	65-50
MP 320.37	20		

Eastward speed signs at MP 272.06 is 0.63 mile instead of three-fourths mile from point of restriction.

RULE 14(k). Will not apply in CTC between west switch Dunsmuir Yard and Redding.

RULE 93. Yard limits in which the provisions of Rule 93 will apply, except within CTC limits, are established at the following points:

West MP		East MP
211.92	Gerber.....	216.08
222.04	Red Bluff.....	224.63
256.10	Redding.....	258.74
	“ (Matheson Branch).....	259.23

Gerber: Westward trains, except first-class, must not pass east switch of crossover from main track to track No. 1 just west of Signal 2149, unless proceed signal received from yardman. Yardman must not line switch for westward trains to enter yard track until train has been identified.

Eastward trains, except first-class, must not pass crossover just west of Signal 2136 unless proceed signal received from yardman.

Dunsmuir Yard: Eastward trains and engines receiving diverging route signal to enter west end of Dunsmuir Yard must not pass signal unless flashing white light is displayed on the reverse side of absolute dwarf signal located just east of the derail between main track and lead track at west end of Dunsmuir Yard. Flashing light signal is authority for trains or engines to enter Dunsmuir Yard yard tracks.

When westward train is ready to leave yard track Dunsmuir Yard, whistle signal — o — should be sounded when opposite microphone on pole just west of Little Castle Creek crossing for train dispatcher to line derail and switch.

Dunsmuir: Westward trains receiving diverging route signal at east switch must not pass absolute signal at east switch unless flashing white light is displayed. This flashing white light is mounted on mast of absolute signal which governs eastward movements on track No. 1 located 300 feet west of east switch. Westward trains or engines on tracks No. 1 or No. 2 must not pass fouling point of these tracks east of Shanty No. 3 just east of Butterfly Avenue crossing unless proceed signal received from yardman.

Eastward trains or engines on inside tracks must not pass Butterfly Avenue crossing, unless proceed signal received from yardman at Shanty No. 3.

Unit for display of flashing light located on mast between main track and track No. 1 near west switch of second crossover west of Butterfly Avenue. Westward trains or engines entering yard through crossover or on track No. 1 must not pass absolute signal displaying proceed indication unless flashing white light is displayed.

Fouling point sign has been placed between west end of sand house lead and Pit track No. 25 governing both tracks and between Pit track No. 26 and outbound engine lead governing both tracks. Outbound engines must not pass these fouling point signs until derails have been lined and signal received from yardman.

RULE 99-A. Flag protection to rear of train is not required when train is standing or delayed on main track between eastward absolute signal at west end of Dunsmuir Yard and westward absolute signal at east end of Dunsmuir, except when rear of eastward train is between Signal 3222 and next absolute signal located at east end Dunsmuir.

○RULE 104. The normal position of rigid switches at end of double track and junctions is as follows:

Redding..... Matheson Branch, for Silverthorn line.

Dunsmuir: East switch track No. 2 equipped with a power-operated mechanism and is under the control of yardman at Shanty No. 3. This is not a spring switch but trailing movement may be made from track No. 2 or engine lead. Normal position of switch is for track No. 2.

Switch cannot be power-operated until engine or cars are clear of track circuits which extend 85 feet east and 150 feet west of switch points.

When necessary to hand operate this switch permission must first be obtained from yardman at Shanty No. 3 and after movement completed, switch must be returned to normal position and locked.

Switch-point indicator located at east end track No. 2 to left of track. Indicator does not indicate track occupancy, but when displaying red, yellow or green aspect governs westward movements as follows:

- Green..... Switch lined for track No. 2.
- Yellow..... Switch lined for engine lead.
- Red..... Stop and do not proceed until authorized by yardmaster or his representative.

Unlighted. Most restrictive indication.

Switch-point indicator located at east end track No. 2 to right of track. Indicator does not indicate track occupancy, but when displaying green or yellow aspect governs eastward movement as follows:

- Green..... Switch lined for track No. 2.
- Yellow..... Switch lined for engine lead.
- Unlighted. Stop and do not proceed until authorized by yardmaster or his representative.

○RULE 221. Unit for display of flashing light installed at the following locations:

Station	Location	Direction
Anderson.....	On train-order signal mast..	Westward

Display of flashing white light indicates that train-order signal is displaying proceed indication or that train-order operator has train orders ready for delivery, that such train orders do not restrict train at that station, and that train, provided it is not restricted by timetable or by train orders previously received, may pass fouling point of switch at which an opposing train may enter siding or place where time applies if there is no siding.

○RULE 306. The following block signals, equipped with triangular plate bearing the letter “P” have included in their control limits some special protective device. Absolute signals are listed as “P-A”:

Eastward Signal	Protection	Westward Signal
P-2330	Spring switch east end siding, Glade.....	P-2249
P-A	Spring switch west end siding, Hooker.....	
P-2720	Slide detector fence, MP 270.00, McColl.....	P-A
P-2742	Dragging equipment detectors, Pitbridge....	P-2721
P-2720		P-2743
P-2720	Fire detector, Pitbridge.....	P-2743
P-2720	Slide detector fences, MP 273.70 and 274.10..	P-2743
P-A	Fire detector, bridge 278.50.....	P-2793
P-2868	Slide detector fence, MP 287.60.....	P-2883
P-2882	Fire detector, bridge 288.50, and Slide detector fence, MP 296.00.....	P-A
P-3024		Slide detector fence, MP 302.70.....
P-3050	Slide detector fence, MP 305.60.....	P-3061

SPECIAL INSTRUCTIONS—REDDING SUBDIVISION

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Gerber: Trains or engines stopped by Signal 2141 may then proceed with caution not exceeding 12 MPH provided signal is received from yardman.

Dunsmuir: Trains or engines stopped by Signal 3221 or 3222, may proceed at restricted speed.

Signal 3223, on track No. 1, governs westward movements through crossover to main track only, and will remain dark until crossover switch is opened.

RULE 516. Overlap posts:

Red Bluff: 600 feet west of east switch for eastward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location	Normal Position
Glade..... East end siding.....	Main track
Hooker..... West end siding.....	Main track

Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
*Dunsmuir..... East end track No. 1.....	Track No. 2

*Equipped with switch-point indicator. Indicator does not indicate track occupancy but when displaying green or red aspect governs westward movements as follows:

Green..... Switch lined for track No. 1 or lead.
 Red..... Stop and do not proceed until authorized by yardmaster or his representative unless switch is being hand operated for the movement.

○RULE 605. INTERLOCKING

Redding: Interlocking limits extend from eastward home signal 545 feet west of train-order signal, to beginning of CTC at fouling point of siding.

Top unit of westward absolute signal at east switch siding will govern trains entering interlocking on main track. Bottom unit governs movement on diverging route to end of CTC only.

Trains or engines must get permission from operator at Redding by telephone located near interlocking signals before leaving the Matheson Branch, or Sterling Lumber spur or Old Diamond Match spur, or before moving eastward through crossover at overhead bridge.

Call-on dwarf light signal on siding near crossover at west interlocking limits. When flashing white light displayed authorizes train to proceed on siding to beginning of CTC.

Call-on dwarf light signal near east end track No. 1. When flashing white light displayed authorizes eastward train on track No. 1 to enter main track.

These flashing white lights do not dispense with the use or the observance of automatic, interlocking or other signals, or Rule 513.

When automatic signals within Redding interlocking limits display stop indication, operator's permission must be obtained before train proceeds as prescribed by Rules 507, 509 or 510.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and requires movement as follows:
M.....	2556... Redding.....	Proceed to fouling point east end track No. 1; and may then proceed to interlocking limits if track is clear and interlocking signal displays proceed indication.	
S.....	2556... Redding.....	Enter siding.	
M.....	2585... Redding.....	Proceed to fouling point west end siding.	
S.....	2585... Redding.....	Enter track No. 1.	

RULE 760. CENTRALIZED TRAFFIC CONTROL

Centralized Traffic Control extends from eastward absolute signal at fouling point east end of siding Redding, to east switch Black Butte.

Dwarf type indicators, to indicate dragging equipment, are located at the west and east end of Pit River bridge. These indicators apply to trains in both directions. These indicators display lunar for proceed, and red for stop indication.

Trains finding these indicators indicating stop, must stop and make inspection of train for dragging equipment and must obtain train dispatcher's permission before proceeding.

Three-unit absolute signal at the east end of siding at Lakehead governing westward trains is equipped with a "call-on" signal.

Top Unit.....	Governs movement on main track,
Middle Unit.....	Governs movement to siding,
Bottom Unit.....	Governs movement to house track,
Call-on Signal (Flashing Yellow Light)...	Proceed to couple to train on main track or siding.

Helper engine that is to move and couple to a train on main track or siding after receiving proper absolute signal indication, must stop on short track circuit, just east of 3-unit absolute signal, and wait for "call-on" signal to operate. When call-on signal displays a flashing yellow light, it confers authority to pass the 3-unit absolute signal indicating "stop", and move to the train occupying the main track or siding after such train has stopped and hand signal is received from member of train crew.

Telephone for communicating with train dispatcher located at:

Signal 2596, 2597, 2721, D-2741, 2749, 2756, 2828, 2829, 2837, 2838, 2868, 2869, 2882, 2883.

RULE 763. Trains entering CTC limits at Redding will display same indication and signals to the end of the subdivision. Trains leaving Dunsmuir or Dunsmuir Yard will display indicators and signals in accordance with address shown on clearance. Trains originating at other intermediate points in CTC limits will display indicators as an extra train unless otherwise instructed by train dispatcher.

Second paragraph of Rule 96 will not apply at Redding when there is no change in the number of sections of a schedule moving from CTC territory into train-order territory.

GENERAL REGULATIONS

RULE 825. Instructions for setting hand brakes: Dunsmuir and Dunsmuir Yard:

Passenger trains.....	{ Two brakes on east end, Three brakes on west end.
Freight trains or cuts of 25 cars or less.....	Ten brakes on west end.
Freight trains or cuts of 26 to 50 cars.....	{ Ten brakes on west end, Five brakes on east end.
Freight trains or cuts of over 50 cars.....	{ Ten brakes on west end, Ten brakes in center of train, Five brakes on east end.

Staff brakes on freight trains must be set with the assistance of a brake club after train has stopped. Any employe releasing any of these brakes, must set as many others to replace them.

When it is necessary to double over incoming freight trains at Dunsmuir Yard, trainmen will secure that portion of train not doubled over, and yardmen will secure that portion of train doubled over, with the required number of hand brakes.

Girvan: Cars must not be spotted less than two car-lengths beyond derail on Oaks spur.

Anderson: Cars must not be spotted east of road crossing on Del Loma spur.

Portable rail skids are hung on posts at lower end of sidings at Glade, Central Valley, McColl, Lakehead, Delta, Lamoine, Gibson, Sims, Conant, Castella and Castle Crag.

When necessary to leave cars on these sidings, permission must first be obtained from chief train dispatcher, after which rail skid must be placed on rail and leading wheel of first car in descending direction run onto the rail skid, and hand brakes set if brakes are operative, before engine is detached. Trains picking up cars from these sidings must remove rail skid and return it to proper post and lock it in place with switch lock.

RULE 827. At Gerber, forward brakeman of Nos. 10 and 12, will take a position on station side where rear of train will stop and make rolling inspection of train, then walk length of train on opposite side making standing inspection, giving careful attention to running gear and journal boxes, and entrain on station side.

On freight trains between Dunsmuir and Redding, member of train crew will observe track from rear of caboose (except when helper engine is placed behind caboose), so train may be stopped in event of derailment. Lights placed on rear of caboose will be used at night to assist in observing track.

RULE 837. When handling passenger equipment Dunsmuir or Dunsmuir Yard, single car must not be left on track not protected by derail.

AIR BRAKE RULES

RULE 2. When switch engine is used in Dunsmuir Yard limits, air brakes will be cut in on cars as follows:

TONS	BRAKES
750 to 1250	5
1250 to 2000	10
2000 and over	15

RULE 17. One retaining valve for each 125 tons in freight and mixed trains will be used from Dunsmuir Yard to Delta, except when three or more dynamic brakes are in operation.

Freight and mixed trains on descending grades between Middle Creek and Matheson may handle not to exceed 1000 tons per each operative dynamic brake without retaining valves, except when handled by engines with less than one operative dynamic brake for each 1000 tons in train, one retaining valve must be used for each 50 tons in train, except if tonnage exceeds 50 tons per retaining valve train may be handled if not over 60 tons per retaining valve.

FREIGHT TRAINS

RULE 22. Trainmen must not couple air hose on outgoing freight trains at Gerber until train is made up and caboose and road engine on train. Coupling the caboose and road engine to the train will be considered as an indication that the train is made up and yardmen have completed their work. Yardmen must not perform switching on, or couple other cars to a train on which the caboose and road engine has been attached, without instruction from the yardmaster, who will see that members of the crew are notified in advance.

Trainmen must not couple air hoses on outgoing freight trains at Dunsmuir Yard or Dunsmuir until they have been notified by the yardmaster or his representative that the switching has been completed. After trainmen have been so notified, yardmen must not perform switching on, or couple other cars or engines to the train without instructions from the yardmaster or his representative, who must notify trainmen before the intended move is made.

RULE 24. When terminal test outlined in Air Brake Rule 22 has been made at originating terminal on through freight trains, road test as outlined in Air Brake Rule 24 will not be made at intermediate terminal Gerber, Dunsmuir Yard and Dunsmuir, except when cars are added to the consist. Instead, test will be made as outlined in Air Brake Rule 25—Rear End test. Changing crews, caboose and/or engine, will not necessitate road test outlined in Air Brake Rule 24.

RULE 25. When terminal test outlined in Air Brake Rule 22 has been made at originating terminal, rear end test outlined in Air Brake Rule 25 will be made at intermediate terminal Gerber, Dunsmuir Yard and Dunsmuir on freight trains moving through without cars being added to the consist or on which only crews, caboose and/or engines may be changed. Under these conditions rolling inspection by trainmen will be made on freight trains arriving and leaving the intermediate terminal.

PASSENGER TRAINS

RULE 38. Trainmen must not couple or uncouple air hoses or steam conduits on passenger trains at Dunsmuir until they have been notified by the yardmaster or his representative that switching has been completed. After trainmen have been so notified, yardmen must not perform switching on, or couple other cars or engines to the train without instructions from the yardmaster or his representative who must notify trainmen before the intended move is made.

Trainmen must not couple steam and air hose on outgoing trains at Gerber until train is made up.

MISCELLANEOUS

10. Engines listed are not permitted to operate on tracks shown below:

Class of Engine	Restricted Tracks
All	Delta—Beyond restriction sign on spur.
"	Gibson—Beyond restriction sign on spur.
"	Sims—Beyond restriction sign on spur.
"	Lamoine—Little Slate Creek bridge.

11. Load limit (car and contents):
 Gerber-Dunsmuir.....251,000 pounds
 Redding-Coram.....240,000 pounds
 Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Gerber	48 (Water)
Red Bluff	30 (Water)
Cottonwood	30 (Water)
Dunsmuir Yard	5 (Water)

©30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

MP	Location	Description
258.50	Redding... Highway bridge	Overhead
300.00	Lamoine .. Bridge on siding	Side
301.80	Lamoine .. Bridge No. 6	Overhead & side
302.20	Lamoine .. Bridge No. 7	Overhead & side
305.30	Gibson... Bridge No. 8	Overhead & side
305.40	Gibson... Tunnel No. 13	Overhead & side
306.70	Fisher... Bridge No. 9	Overhead & side
308.60	Sims	Overhead & side
308.90	Sims .. Bridge No. 11	Overhead & side
310.60	Sims .. Bridge No. 13	Overhead & side

SPECIAL INSTRUCTIONS—REDDING SUBDIVISION

○ **SPEED RESTRICTIONS FOR TRAINS:** Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 3 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT**, and **OTHER MAXIMUM SPEEDS** appearing on page 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP	MP	Column:	1	2	3	MP	MP	Column:	1	2	3
EASTWARD, GERBER TO DUNSMUIR:						WESTWARD, DUNSMUIR TO GERBER:					
213.80 to 223.18			79	55	70	★322.10 to 321.12			20	20	20
★223.18 to 223.83 (Red Bluff)			25	25	25	321.12 to 295.60 (288.66)			30	25	30
223.83 to 226.20			65	50	65	288.66 to 285.93			50	50	50
226.20 to 226.61			60	50	60	285.93 to 281.00			60	50	60
226.61 to 230.62			65	50	65	281.00 to 277.47			50	50	50
230.62 to 230.92			60	50	60	277.47 to 275.76			60	50	60
230.92 to 233.60			65	50	65	275.76 to 275.40			50	50	50
233.60 to 242.46			79	55	70	275.40 to 273.35			60	50	60
242.46 to 243.74			65	50	65	273.35 to 272.69			50	45	50
243.74 to 258.00			79	55	70	272.69 to 270.25			65	50	65
★258.00 to 258.80 (Redding)			20	20	20	270.25 to 269.05			50	50	50
258.80 to 259.66			50	45	50	269.05 to 261.17			65	50	65
259.66 to 261.17			60	50	60	261.17 to 259.66			60	50	60
261.17 to 269.05			65	50	65	259.66 to 258.80			50	45	50
269.05 to 270.25			50	50	50	★258.80 to 258.00 (Redding)			20	20	20
270.25 to 272.69			65	50	65	258.00 to 243.74			79	55	70
272.69 to 273.35			50	45	50	243.74 to 242.46			65	50	65
273.35 to 275.40			60	50	60	242.46 to 233.60			79	55	70
275.40 to 275.76			50	50	50	233.60 to 230.92			65	50	65
275.76 to 277.47			60	50	60	230.92 to 230.62			60	50	60
277.47 to 281.00			50	50	50	230.62 to 226.61			65	50	65
281.00 to 285.93			60	50	60	226.61 to 226.20			60	50	60
285.93 to 288.66 (295.60)			50	50	50	226.20 to 223.83			65	50	65
295.60 to 321.12			30	25	30	★223.83 to 223.18 (Red Bluff)			25	25	25
★321.12 to 322.10			20	20	20	223.18 to 213.80			79	55	70

★Regulated by City ordinance.

★★ICC Regulation, and PUC Order.

Light engines on descending grades without dynamic brakes in operation must not exceed speed shown for freight and mixed trains.

No. 377 (PCE) and No. 378 (PCE), when consist contains no restricted cars, may operate at speeds shown in Column 1, except maximum speed must not exceed 60 MPH.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS With Caution Not Exceeding MPH

Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except: Through sidings and turnouts at Silverthorn, Central Valley, McColl, O'Brien, Mead and Lakehead	15
Through turnouts on other than sidings	25
On branches	10
Engines moving west over spur switch east end Lamoine siding	10

SPECIAL INSTRUCTIONS—REDDING SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Gerber to Delta	Delta to Dunsmuir	Dunsmuir to Gerber	Redding and Ceram
DP-4, 7	6000 to 6004, 6017, 6018, 5900 to 5909, 5916, 5917	825	550	1250	....
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915	1275	1185	1975	....
DP-12	6019 to 6033, 5918 to 5924, 6034 to 6045, 6046 to 6054				
DF-1 to 12	6138 to 6461, 8022 to 8303, except with 61:16 gear ratio	1475	1300	2225	....
DF-100	5200 to 5202	....	....	....	775
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	1950	1700	3600	1175
DF-109, 111	4903 to 4905, 5250 to 5252	2925	2550	4450	1475
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	2400	2100	3700	1200
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	2850	2475	4275	1450
DF-200 to 206	5100 to 5120	....	....	....	....
DF-300 to 304	4600 to 4623, 4700 to 4703	....	....	....	....
DF-305, 306	4624 to 4633	....	....	....	....
DF-307	4634 to 4645	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....
DF-603, 605, 606, 607, 611	5600 to 5719, 5730 to 5799	1575	1375	2375	....
DF-608 to 610	5720 to 5729	....	....	....	....
DS-1 to 8	1000 to 1032	605	525	950	....
DS-9 to 12	1033 to 1090	....	....	....	....
DS-100 to 109, 111, 115, 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	925	800	1425	....
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	1200	1025	1975	....
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....	....	....
DS-200, 201	1900 to 1903	....	....	....	....

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

SPECIAL INSTRUCTIONS—BLACK BUTTE SUBDIVISION

RULE 10-J. Speed signs to left of track:

Eastward	Reading	Westward	Reading
MP 426.14	50-40	MP 344.87	30

RULE 14(k). Will not apply in CTC between west switch Dunsmuir Yard and Black Butte.

⊙ **RULE 93.** Yard limits in which the provisions of Rule 93 will apply, except within CTC limits, are established at the following points:

West MP		East MP
	Black Butte.....	346.49
	" (Siskiyou line).....	346.50
405.87	Dorris.....	407.43
425.67	Klamath Falls.....	432.66
552.04	" (Merrill line).....	
345.64	Weed.....	350.08
375.04	Montague.....	376.34
392.26	Hornbrook.....	394.01
400.46	Hilt.....	402.98
426.92	Ashland.....	430.79

Dunsmuir: Westward trains receiving diverging route signal at east switch must not pass absolute signal at east switch unless flashing white light is displayed. This flashing white light is mounted on mast of absolute signal which governs eastward movements on track No. 1 located 300 feet west of east switch. Westward trains or engines on track No. 1 or No. 2 must not pass fouling point of these tracks east of Shanty No. 3 just east of Butterfly Ave. crossing unless proceed signal received from yardman.

Eastward trains or engines moving on yard tracks must not pass Butterfly Ave. crossing, unless proceed signal received from yardman at Shanty No. 3.

Unit for display of flashing light located on mast between main track and track No. 1 near west switch of second crossover west of Butterfly Avenue. Westward trains or engines entering yard through crossover or on track No. 1 must not pass absolute signal displaying proceed indication unless flashing white light is displayed.

Fouling point sign has been placed between west end of sand house lead and Pit track No. 25 governing both tracks and between Pit track No. 26 and outbound engine lead governing both tracks. Outbound engines must not pass these fouling point signs until derails have been lined and signal received from yardman.

Klamath Falls Yard: Eastward trains, except first-class, must sound whistle signal o — — o passing Signal 4274 and must not pass Signal 4286 unless proceed signal is received from yardman. Yardman must not line switch for eastward trains to enter yard track until whistle signal o — — o has been sounded and train has been identified.

Klamath Falls: Westward trains must not pass absolute signal displaying "Proceed on Diverging Route" at east switch unless flashing white light is displayed in signal on signal bridge at end of CTC.

Yardman's proceed signal will indicate that protection has been provided against first-class trains for trains moving between CTC limits and west end Klamath Falls Yard.

Movements of GNRy trains and engines between end of CTC and junction switch of GNRy will be directed by yardmaster.

RULE 99-A. Flag protection to rear of train is not required when train is standing or delayed on main track between eastward absolute signal at west end of Dunsmuir Yard and westward absolute signal at east end of Dunsmuir, except when rear of eastward train is between Signal 3222 and next absolute signal located at east end Dunsmuir.

RULE 99-C. Will apply on Black Butte Subdivision between Black Butte and Ashland.

RULE 103-A. Ashland: Cars or engines must not be left standing within control circuits of automatic warning device at Oak Street crossing. Movements stopped within the limits of these control circuits must not enter crossing until it has been ascertained that automatic warning device is operating.

⊙ **RULE 104.** The normal position of rigid switches at end of double track and junctions is as follows:

- Mount Shasta . . . McCRRR main track, for interchange track,
 - Black Butte . . . Siskiyou line, for controlled siding,
 - Klamath Falls . . . GNRy main track, for SP main track,
 - Klamath Falls . . . Merrill line, from track No. 17 for Merrill line,
 - Klamath Falls . . . OC&ERy main track, for yard track,
 - Montague YWRy main track, for house track.
- Trains using McCRRR house track at Mount Shasta must leave derail lined and locked in derailing position.
- Normal position of inside switches on house track Grass Lake is for the wye.

Derails on main track:

Ashland 210 feet west of east switch.

Black Butte: Operators will handle switches for Siskiyou line trains via eastward siding, Siskiyou siding or Cascade main track, as directed by train dispatcher.

When instructed by train dispatcher to set Siskiyou siding switch for westward Siskiyou line train to enter Siskiyou siding and after switch has been properly set, operator must inform a member of the crew orally that switch is set for the movement if there is a means of communication available. If no means of communication is available, operator must give the train a proceed signal, yellow flag by day, yellow light by night, after switch has been set for the movement.

Oral permission from operator or proceed signal with a yellow flag or light will authorize westward Siskiyou line trains to pass absolute signal displaying stop indication without stopping and enter Siskiyou siding.

This will not relieve trainmen from handling switches when operators are engaged in other duties except that operators will return these switches to normal position after use by through trains.

Dunsmuir: East switch track No. 2 equipped with a power-operated mechanism and is under the control of yardman in Shanty No. 3. This is not a spring switch but trailing movements may be made from track No. 2 or engine lead. Normal position of switch is for track No. 2.

Switch cannot be power-operated until engine or cars are clear of track circuits which extend 85 feet east and 150 feet west of switch points.

When necessary to hand operate this switch permission must first be obtained from yardman at Shanty No. 3 and after movement completed, switch must be returned to normal position and locked.

Switch-point indicator located at east end track No. 2 to left of track. Indicator does not indicate track occupancy, but when displaying red, yellow or green aspect governs westward movements as follows:

- Green Switch lined for track No. 2.
- Yellow Switch lined for engine lead.
- Red Stop and do not proceed until authorized by yardmaster or his representative.
- Unlighted Most restrictive indication.

Switch-point indicator located at east end track No. 2 to right of track. Indicator does not indicate track occupancy, but when displaying green or yellow aspect governs eastward movements as follows:

- Green Switch lined for track No. 2.
- Yellow Switch lined for engine lead.
- Unlighted Stop and do not proceed until authorized by yardmaster or his representative.

○ **RULE 306.** The following block signals, equipped with triangular number plate displaying the letter "P", have included in their control limits some special protective device:

Eastward Signal	DUNSMUIR-KLAMATH FALLS	Westward Signal
P-A	Slide detector fence, MP 326.86 and MP 326.92	P-3273
P-3290	Slide detector fence MP 329.50	P-3301
P-3602	Collision detector, bridge 360.82	P-3611
P-3602	Spring switch west end siding Andesite	
P-3682	Spring switch west end westward siding Grass Lake	
	Spring switch east end eastward siding Grass Lake	P-3695
P-3728	Spring switch, west end siding, Erickson	
P-4098	Collision detector, bridge 410.57	P-4119
BLACK BUTTE-ASHLAND		
P-3500	Collision detector, bridge 351.73	P-3521
P-3726	Collision detector, bridge 373.54	P-3741

○ **RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM**

Dunsmuir: Signal 3223, on track No. 1, governs westward movements through crossover to main track only, and will remain dark until crossover switch is opened.

Trains or engines stopped by Signals 3221 or 3222 may proceed at restricted speed.

Klamath Falls: Trains or engines stopped by Signal 4293 may proceed at restricted speed.

Signal 4278 at derail GNRy Bieber line, top unit governs from Bieber line to Cascade line main track; lower unit governs from Bieber line to GNRy line crossing Lake Ewauna.

Signal 4277 at derail from line crossing Lake Ewauna governs to GNRy Bieber line.

Signal 4279 just east of GNRy Lake Ewauna line connection on Cascade line, lower unit governs to GNRy Bieber line or SP Merrill line.

Signal 4275.5 at fouling point ladder tracks between tracks Nos. 17 and 18 governs from all ladder tracks to Merrill line.

Junction of GNRy and Cascade line (Signals 4284-4283). Should these signals fail to indicate "proceed" after switches are lined wait four minutes for time element relay to function, which will be effective when approach circuit to junction switch is occupied. After operation of time element relay, if signals do not indicate "proceed", Rules 509 and 513 apply.

Siskiyou: When Signal 4112 west of Siskiyou displays proceed on diverging route eastward trains are authorized to enter siding at Siskiyou.

Ashland: If means of communication available and permission is obtained to proceed on main track or proceed signal received from yardman, green flag by day, green light by night, eastward trains may pass Signal 4284 displaying stop indication without stopping at restricted speed.

○ **RULE 535. SPRING SWITCHES**

Spring switches equipped with facing point locks are located as follows:

Location	Normal Position
Andesite West end siding	Main track
Grass Lake West end westward siding	Main track
Grass Lake East end eastward siding	Main track
Erickson West end siding	Main track

Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
*Dunsmuir East end track No. 1	Track No. 2

*Equipped with switch-point indicator. Indicator does not indicate track occupancy but when displaying green or red aspect governs westward movements as follows:

- Green Switch lined for track No. 1 or lead.
- Red Stop and do not proceed until authorized by yardmaster or his representative unless switch is being hand operated for the movement.

○ **RULE 760. CENTRALIZED TRAFFIC CONTROL**

Centralized Traffic Control extends from eastward absolute signal at fouling point east end of siding Redding, to east switch Black Butte.

Eastward absolute signals just west of station building Black Butte display indications as follows:

Main track signal: top unit for main track; middle unit for crossover to Siskiyou line; bottom unit for crossover to controlled siding.

Controlled siding signal: top unit for crossover to main track; middle unit for Siskiyou line; bottom unit to continue movement on controlled siding. Flashing white light on this signal to left of mast indicates signal is cleared for movement out of Siskiyou siding; and to right of mast indicates signal is cleared for movement from controlled siding.

RULE 763. Trains entering CTC limits at Black Butte will display same indication and signals to the end of the subdivision. Trains leaving Dunsmuir or Dunsmuir Yard will display indicators and signals in accordance with address shown on clearance. Trains originating at other intermediate points in CTC limits will display indicators as an extra train unless otherwise instructed by train dispatcher.

Second paragraph of Rule 96 will not apply at Black Butte when there is no change in the number of sections of a schedule moving from CTC territory into train-order territory.

GENERAL REGULATIONS

RULE 825. Instructions for setting hand brakes: Dunsmuir and Dunsmuir Yard:

- Passenger Trains { Two brakes on east end, Three brakes on west end.
- Freight trains or cuts of 25 cars or less Ten brakes on west end.
- Freight trains or cuts of 26 to 50 cars { Ten brakes on west end, Five brakes on east end.
- Freight trains or cuts of over 50 cars { Ten brakes on west end, Ten brakes in center of train, Five brakes on east end.

Ashland:
 Passenger trains Two brakes on east end.
 Freight trains or cuts of cars Five brakes on east end.

Klamath Falls and Klamath Falls Yard:
 Passenger Trains { Two brakes on west end, Two brakes on east end.
 Freight trains or cuts of cars { Five brakes on west end, Five brakes on east end.

Hand brakes on east end of westward passenger trains Dunsmuir must not be set until after train stops.

Staff brakes on freight trains must be set with the assistance of brake club after train has stopped. Any employe releasing any of these brakes, must set an equal number to replace them.

When it is necessary to double over incoming freight trains at Dunsmuir Yard, trainmen will secure that portion of train not doubled over, and yardmen will secure that portion of train doubled over, with the required number of hand brakes.

SPECIAL INSTRUCTIONS—BLACK BUTTE SUBDIVISION

Portable rail skids are hung on posts at lower end of sidings at Small, Mott, Azalea, Mount Shasta, Upton, Deetz, and Black Butte.

When necessary to leave cars on these sidings, permission must first be obtained from chief train dispatcher, after which rail skid must be placed on rail and leading wheel of first car in descending direction run onto the rail skid, and hand brakes set if brakes are operative, before engine is detached. Trains picking up cars from these sidings must remove rail skid and return it to proper post and lock it in place with switch lock.

RULE 826. Klamath Falls: Indicator lights located east and west of PFE icing platforms as follows:

West of PFE icing platforms:

(a) On mast to right of track No. 25.

East of PFE icing platforms:

(b) On stub mast at fouling point track No. 22.

(c) On cantilever bridge over track No. 24.

(d) On high mast to right of track No. 25.

(e) On pole in vicinity of freight office, to right of track No. 25, which repeats indication shown in (d),

govern movements on those tracks as follows:

Green —Tracks may be used for train or switching movements.

Yellow —Tracks may be entered and engines, cars or cabooses added or detached, but cars must not be dropped or kicked against cars on those tracks.

Red —Tracks may be entered but cars on those tracks must not be coupled to or moved. Trains made up on these tracks must not depart until it has been ascertained indicator displays green aspect.

Not Lighted—Must be considered as displaying most restrictive indication and icing platform foreman must be contacted for instructions before cars are coupled to or moved.

RULE 827. Freight trains using retaining valves on descending grade will stop as indicated, at the following stations for heat radiation:

Steinman.....	10 minutes
Gregory.....	10 minutes
Weed or Edgewood.....	10 minutes
Azalea.....	5 minutes
Andesite.....	10 minutes

(If stop of not less than 5 minutes has been made at Cougar, the stop at Andesite will not be necessary, in which event 10 minute stop must be made at Bolam.)

Freight trains with three or more dynamic brakes in operation need not stop at Andesite or Azalea for heat radiation if there is no indication of wheels overheating and in the judgment of conductor and engineer it is safe to proceed.

Freight trains, except those using retaining valves as required on trains without dynamic brakes in operation, need not stop at Hilt for heat radiation if there is no evidence of wheels overheating and in the judgment of conductor and engineer it is safe to proceed.

Engines running light on descending grade must stop at the above stations a sufficient length of time to permit heat radiation.

Trains handling logs, (except in gondolas), must stop before entering yard at Klamath Falls; before passing through tunnels; over Dry Canyon viaduct between Hotlum and Bolam; and over Klamath River bridge west of Hornbrook, at which time load and chains on cars of logs must be inspected.

On freight trains between Black Butte and Edgewood, Snowdon and Ashland, Mt. Hebron and Dunsmuir Yard, member of train crew will observe track from rear of caboose, (except when helper engine is placed behind caboose) so train may be stopped in event of derailment. Lights placed on rear of caboose will be used at night to assist in observing track.

RULE 837. When handling passenger equipment Dunsmuir Yard, single car must not be left on track not protected by derail.

At Ashland all passenger equipment being switched must have air brakes in service on all cars.

AIR BRAKE RULES

RULE 2. When switch engine is used on yard tracks at east end of Klamath Falls, handling twenty-five cars or more, air brakes must be cut in and operative on not less than six cars.

When switch engine is used in Dunsmuir and Ashland yard limits air brakes will be cut in on cars as follows:

TONS	BRAKES
750 to 1250.....	5
1250 to 2000.....	10
2000 and over.....	15

○RULE 17. Retaining valves will be used on freight and mixed trains on descending grades as follows:

Between Grass Lake and Azalea and between Snowdon and Hornbrook:

With four dynamic brakes in operation and handling over 5000 tons, one retaining valve for each 175 tons.

With three dynamic brakes in operation and handling over 4000 tons, one retaining valve for each 150 tons.

With less than three dynamic brakes in operation, retaining valves as required on trains without dynamic brakes in operation must be used.

Between Azalea and Dunsmuir and between Black Butte and Edgewood:

With four dynamic brakes in operation and handling over 4500 tons, one retaining valve for each 175 tons.

With three dynamic brakes in operation and handling over 3500 tons, one retaining valve for each 150 tons.

With less than three dynamic brakes in operation, retaining valves as required on trains without dynamic brakes in operation must be used.

In the event additional retaining valves are required on freight or mixed trains between Azalea and Dunsmuir and train stops at Black Butte or between Black Butte and Azalea, such retaining valves may be turned up at that time.

The maximum retaining pressure must be used from Siskiyou to Ashland and Siskiyou to Hornbrook on loaded cars.

Conductor will ascertain gross weight of each refrigerator, and where such car weighs 47½ tons or more, retaining valves must be placed in high pressure position, or if less than 47½ tons must be placed in low pressure position.

Gross tonnage on westward trains between Grass Lake and Dunsmuir must not exceed 70 tons per operative brake.

Retaining valves will be used on freight and mixed trains without dynamic brakes in operation on descending grades as follows:

Azalea-Dunsmuir Yard ...	One valve for each 50 tons in train,
Grass Lake-Azalea.....	One valve for each 75 tons in train,
Black Butte-Edgewood ...	One valve for each 50 tons in train,
Snowdon-Hornbrook.....	One valve for each 75 tons in train,
Siskiyou-Ashland.....	One valve for each 45 tons in train,
Siskiyou-Hornbrook.....	One valve for each 45 tons in train.

If tonnage exceeds amount of tons specified for each retaining valve, trains may be handled between Azalea and Dunsmuir Yard, Black Butte and Edgewood, up to 60 tons; and between Ashland and Hornbrook up to 50 tons per operative retaining valve.

Retaining valves must be turned down if stop is made between MP 388.40 and Hornbrook.

Freight trains of not more than 60 cars and not more than 32½ tons per operative brake may be handled Snowdon to Hornbrook or Grass Lake to Azalea with no retaining valves provided engineer can properly control speed of train and charge brake pipe to standard pressure between applications. If necessary to use retaining valves to control speed of train, engineer will instruct train crew number of retaining valves required.

The tonnage of any freight train between Hornbrook and Ashland must not exceed 45 tons per operative brake. Westward trains must not be moved out of Ashland in excess of this tonnage per operative brake. The tonnage of any freight train descending grade between Mount Shasta and Dunsmuir, Black Butte and Edgewood, must not exceed 60 tons per operative brake.

Trains handled by DF-120 to 126 class engines, when tonnage does not require retaining valves to be used; freight or mixed trains of 1000 tons or less, with four dynamic brakes in operation and no retaining valves in use, may run not to exceed 20 MPH between the following points on Siskiyou line:

EASTWARD	WESTWARD
MP 411.90 to MP 413.33	MP 411.90 to MP 407.98
MP 413.48 to MP 414.72	MP 407.65 to MP 394.32
MP 415.05 to MP 417.74	
MP 418.06 to MP 426.41	

Where speed shown on speed signs for these territories conflict, the above speeds will govern.

Between Ashland and Hornbrook:

Trains handled by DF-1 to 12 class engines with four dynamic brakes operating, or with DF-114 to 126 class engines with three dynamic brakes operating and handling over 2650 tons, one retaining valve for each 100 tons. When less than the number of dynamic brakes prescribed are in operation, retaining valves as required on trains without dynamic brakes in operation must be used.

Retaining valves will be used on passenger trains on descending grades as follows:

Retaining valves will be turned up at Mount Shasta on head-end cars on passenger trains with more than four head-end cars and all other accessible retaining valves must be turned up Azalea to east switch Dunsmuir, except that westward passenger trains handled by diesel engine need not use retaining valves Mount Shasta to Dunsmuir provided dynamic brakes are functioning. Engineer must notify trainmen if necessary to use retaining valves.

All accessible retaining valves must be turned up on passenger trains Black Butte to Edgewood.

All retaining valves must be turned up on passenger trains Siskiyou to Ashland, and accessible retaining valves may be turned down after passing yard limit sign west of Ashland.

All retaining valves must be turned up on passenger trains Siskiyou to MP 403.60. Retaining valves on head-end cars must be left turned up between MP 403.60 and MP 400.00. All retaining valves must be turned up on passenger trains MP 400.00 to Hornbrook.

RULE 22. Trainmen must not couple air hoses on outgoing freight trains at Dunsmuir Yard or Dunsmuir until they have been notified by the yardmaster or his representative that the switching has been completed. After trainmen have been so notified, yardmen must not perform switching on, or couple other cars or engines to the train without instructions from the yardmaster or his representative, who must notify trainmen before the intended move is made.

RULE 24. When terminal test outlined in Air Brake Rule 22 has been made at originating terminal on through freight trains, road test as outlined in Air Brake Rule 24 will not be made at intermediate terminals Dunsmuir Yard, Dunsmuir, Klamath Falls Yard and Klamath Falls except when cars are added to the consist. Instead, test will be made as outlined in Air Brake Rule 25—Rear end test. Changing crews, caboose and/or engine, will not necessitate road test outlined in Air Brake Rule 24.

RULE 25. When terminal test outlined in Air Brake Rule 22 has been made at originating terminal, rear end test outlined in Air Brake Rule 25 will be made at intermediate terminals Dunsmuir Yard, Dunsmuir, Klamath Falls Yard and Klamath Falls on freight trains moving through without cars being added to the consist or on which only crews, caboose and/or engines may be changed. Under these conditions rolling inspection by inspectors or trainmen will be made on freight trains arriving and leaving the intermediate terminal.

Rear end test must be made on all trains at Siskiyou eastward and westward, except when not required to stop for other reasons and means of communication are available, rear end test need not be made provided road engineer is assured by trainmen that air gage in caboose registers normal brake pipe pressure approaching Siskiyou.

Running test must be made on all trains westward between Grass Lake and Cougar; on Siskiyou line trains between Black Butte and Upton westward, and between Black Butte and Weed eastward. Running test will be made as follows: Engineer while working power will make a light reduction, wait for slack to adjust itself, then make a second light reduction. Brakes must be released in accordance with Rule 29. Trainmen must note reduction on caboose gage, and following build-up in pressure when brakes are released, give proceed signal.

PASSENGER TRAINS

RULE 38. Rear-end test must be made immediately prior to leaving Siskiyou on all trains.

Trainmen must not couple or uncouple air hoses or steam conduits on passenger trains at Dunsmuir until they have been notified by the yardmaster or his representative that switching has been completed. After trainmen have been so notified, yardmen must not perform switching on, or couple other cars or engines to the train without instructions from the yardmaster or his representative who must notify trainmen before the intended move is made.

RULE 39. Running test on passenger trains must be made as follows: Eastward trains at Snowdon; Siskiyou line trains at Black Butte; westward trains at Grass Lake.

SPECIAL INSTRUCTIONS—BLACK BUTTE SUBDIVISIONS**TRAIN HANDLING**

©**RULE 60.** On freight trains using dynamic brakes, before entering or leaving siding, turnout or crossover on descending grade at Small, Mott, Weed, Edgewood, Gregory, Steinman, Mistletoe or Ashland, dynamic braking force must be reduced to one-half of maximum, and if necessary automatic brakes applied sufficiently so that speed will not exceed 15 MPH while engine is moving between points 500 feet before reaching, and 1500 feet after passing the turnout or crossover.

Before eastward trains move over west switch at Mistletoe, train brakes must be applied sufficiently in advance to reduce speed to not exceeding 15 MPH and dynamic brake on lead engine must be reduced to not exceeding 300 amperes. This operation must be continued until entire train has passed over switch.

MISCELLANEOUS

10. Engines listed are not permitted to operate on tracks shown below:

Class of Engine	Restricted tracks
All engines.....	Dorris—Beyond engine restriction sign Ass'd Lbr. Co. spur.
"	Pioneer—Beyond engine restriction sign.
All engines and cars.	Ashland—Beyond restriction sign on Bagley Canning spur.

At Mount Shasta, switching movements to or from McCRRR tracks Nos. 1, 2, 3 or 4, when made through the connection from siding to McCRRR main track, may be made without flag protection after ascertaining that there are no movements being made on McCRRR west of State highway. Movements on west leg of wye McCRRR track must not be made without proper flag protection.

11. Load limit (car and contents):
 Dunsmuir-Klamath Falls..... 251,000 pounds
 Black Butte-Ashland..... 251,000 pounds
 Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Dunsmuir Yard.....	5 (Water)
Dorris.....	10 (Water)
Worden.....	6
Klamath Falls.....	95 (Water)
Edgewood.....	4 (Water)
Gazelle.....	5 (Water)
Grenada.....	10 (Water)

30.**LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS**

MP	Location	Description
325.00	Dunsmuir... Sacramento River 16th crossing.....	Overhead and side
407.80	Dorris..... Tunnel No. 17.....	Overhead and side
410.00	Dorris..... Tunnel No. 18.....	Overhead and side
390.90	Ager..... Klamath River bridge.	Overhead and side
411.30	Siskiyou... Tunnel No. 13.....	Overhead and side
414.60	Siskiyou... Tunnel No. 14.....	Overhead and side
415.20	Siskiyou... Tunnel No. 15.....	Overhead and side
419.90	Steinman... Tunnel No. 16.....	Overhead and side

SPECIAL INSTRUCTIONS—BLACK BUTTE SUBDIVISION

⊙ **SPEED RESTRICTIONS FOR TRAINS:** Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 3 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT**, and **OTHER MAXIMUM SPEEDS** appearing on page 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP	MP	Column:	1	2	3	MP	MP	Column:	1	2	3
EASTWARD, DUNSMUIR YARD TO KLAMATH FALLS:						WESTWARD, KLAMATH FALLS TO DUNSMUIR YARD:					
★321.20 to 322.57			20	20	20	429.50 to 427.57			50	25	25
322.57 to 327.87			30	25	30	427.57 to 426.89			50	40	50
327.87 to 328.17			20	15	20	426.89 to 415.27			70	50	70
328.17 to 335.61			30	25	30	415.27 to 407.35			50	50	50
335.61 to 337.87			40	35	40	407.35 to 390.10			70	50	70
337.87 to 343.94			50	40	50	390.10 to 379.12			50	50	50
343.94 to 344.12			30	30	30	379.12 to 373.76			70	50	70
344.12 to 350.79			35	30	35	373.76 to 369.45			50	50	50
350.79 to 354.97			40	30	40	369.45 to 363.71			50	40	50
354.97 to 355.50			35	30	35	363.71 to 359.01			45	40	45
EASTWARD, BLACK BUTTE TO ASHLAND:						WESTWARD, ASHLAND TO BLACK BUTTE:					
355.50 to 359.01			40	40	40	359.01 to 355.50			40	40	40
359.01 to 363.71			45	40	45	355.50 to 354.97			35	30	35
363.71 to 369.45			50	40	50	354.97 to 350.79			40	30	40
369.45 to 373.76			50	50	50	350.79 to 344.12			35	30	35
373.76 to 379.12			70	50	70	344.12 to 343.94			30	30	30
379.12 to 390.10			50	50	50	343.94 to 337.87			50	40	50
390.10 to 407.35			70	50	70	337.87 to 335.61			40	35	40
407.35 to 415.27			50	50	50	335.61 to 328.17			30	25	30
415.27 to 426.89			70	50	70	328.17 to 327.87			20	15	20
426.89 to 429.50			50	40	50	327.87 to 322.57			30	25	30
						★322.57 to 321.20					
EASTWARD, BLACK BUTTE TO ASHLAND:						WESTWARD, ASHLAND TO BLACK BUTTE:					
345.20 to 359.05			25	25	25	430.78 to 429.93			30	20	30
359.05 to 360.83			40	35	40	★429.93 to 428.65 (street crossings)			20	20	20
360.83 to 365.00			50	40	50	428.65 to 426.41			30	20	30
365.00 to 372.24			50	50	50	426.41 to 418.06			20	20	20
372.24 to 375.14			25	25	25	418.06 to 417.74			15	15	15
375.14 to 381.48			50	40	50	417.74 to 415.05			20	20	20
381.48 to 394.32			25	25	25	415.05 to 414.72			15	15	15
394.32 to 407.65			20	20	20	414.72 to 413.48			20	20	20
407.65 to 407.98			15	15	15	413.48 to 413.33			15	15	15
407.98 to 411.90			20	20	20	413.33 to 411.90			20	20	20
EASTWARD, BLACK BUTTE TO ASHLAND:						WESTWARD, ASHLAND TO BLACK BUTTE:					
411.90 to 413.33			20	15	20	411.90 to 407.98			20	15	20
413.33 to 413.48			15	15	15	407.98 to 407.65			15	15	15
413.48 to 414.72			20	15	20	407.65 to 394.32			20	15	20
414.72 to 415.05			15	15	15	394.32 to 381.48			25	25	25
415.05 to 417.74			20	15	20	381.48 to 375.14			50	40	50
417.74 to 418.06			15	15	15	375.14 to 372.24			25	25	25
418.06 to 426.41			20	15	20	372.24 to 365.00			50	50	50
426.41 to 428.65			30	20	30	365.00 to 360.83			50	40	50
★428.65 to 429.93 (street crossings)			20	20	20	360.83 to 359.05			40	35	40
429.93 to 430.78			30	20	30	359.05 to 345.20			25	25	25

★★ICC Regulation.

★★★PUC Order.

Light engines on descending grades without dynamic brakes in operation must not exceed speed shown for freight and mixed trains.

No. 377 (PCE) and No. 378 (PCE), when consist contains no restricted cars, may operate at speeds shown in Column 1, except maximum speed must not exceed 60 MPH.

RULE 10-J. Passenger trains may operate at speed shown in Column 1 in territory where such speed is in excess of that authorized by speed sign.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS With Caution Not Exceeding MPH

Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through turnouts on other than sidings	10
On branches	10
Hornbrook, engines using wye	8

SPECIAL INSTRUCTIONS—BLACK BUTTE SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Dunsmuir and Edgewood Dunsmuir to Black Butte	Black Butte to Grass Lake	Mt. Hebron to Dunsmuir	Grass Lake to Klamath Falls Klamath Falls to Mt. Hebron	Snowdon to Edgewood Edgewood to Hornbrook	Hornbrook to Ashland Ashland to Hillt	Hillt to Snowdon
DP-4, 7	6000 to 6004, 6017, 6018, 5900 to 5909, 5916, 5917.....	325	500	875	1250	....	....	....
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915..... 6019 to 6033, 5918 to 5924.....	625	1025	1400	2875	....	....	....
DP-12	6034 to 6045..... 6046 to 6054.....	....	....	....	....	....	....	....
DF-1 to 12	6138 to 6461, 8022 to 8303, except..... with 61:16 gear ratio..... with 60:17 gear ratio.....	950	1175	1600	3175	1600	475	1000
DF-100	5200 to 5202.....	....	....	....	....	....	....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278.....	975	1550	2150	4000	2200	625	1225
DF-109, 111	4903 to 4905, 5250 to 5252.....	1475	....	....	....	....	....	....
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493.....	1200	1900	2600	5475	2600	775	1500
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507.....	1475	2275	3075	6175	3075	950	1800
DF-200 to 206	5100 to 5120.....	....	....	....	....	....	....	....
DF-300 to 304	4600 to 4623, 4700 to 4703.....	....	....	....	....	....	....	....
DF-305, 306	4624 to 4633.....	....	....	....	....	....	....	....
DF-307	4634 to 4645.....	....	....	....	....	....	....	....
DF-500, 501	4800 to 4815.....	....	....	....	....	....	....	....
DF-603, 605, 606, 607, 611	5600 to 5719, 5730 to 5799.....	825	1275	1700	3400	....	....	....
DF-608 to 610	5720 to 5729.....	....	....	....	....	....	....	....
DS-1 to 8	1000 to 1032.....	285	475	660	1375	660	165	365
DS-9 to 12	1033 to 1090.....	....	....	....	....	....	....	....
DS-100 to 109, 111, 115, 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567.....	455	735	1025	2075	1025	275	565
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550.....	590	950	1300	2675	1400	365	730
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596.....	....	....	....	....	....	....	....
DS-200, 201	1900 to 1903.....	....	....	....	....	....	....	....

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE M. 4800 volt power line on signal pole line Kirk to Umli. If found broken or down extreme caution must be used and prompt report made from first available means of communication.

RULE 306. The following block signals, equipped with triangular plate displaying the letter "P", have included in their control limits some special protective device.

Eastward Signal	Klamath Falls-Crescent Lake	Westward Signal
P-4406	Slide detector fence between MP 441.9 and MP 442.4	P-4423
P-4424	Slide detector fence between MP 442.4 and MP 444.0	P-4441
P-4440	Slide detector fence between MP 444.0 and MP 445.5	P-4455
P-4456	Slide detector fence between MP 445.6 and MP 446.1	P-A P-A

○RULE 10-J. Speed signs to left of track:

Westward	Reading
MP 438.65	65-50
MP 447.31	65-50

Speed signs to right of track with one track intervening:

Westward	Reading
MP 528.56	70-50

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Trains or engines stopped by Signal 4293 at Klamath Falls, may proceed at restricted speed.

Signal 4278 at derail GNRy Bieber line, top unit governs from Bieber line to Cascade line main track; lower unit governs from Bieber line to GNRy line crossing Lake Ewauna.

Signal 4277 at derail from line crossing Lake Ewauna governs to GNRy Bieber line.

Signal 4279 just east of GNRy Lake Ewauna line connection on Cascade line, lower unit governs to GNRy Bieber line or SP Merrill line.

Signal 4275.5 at fouling point ladder tracks between tracks Nos. 17 and 18 governs from all ladder tracks to Merrill line.

Junction of GNRy and Cascade line (Signals 4284-4283). Should these signals fail to indicate "proceed" after switches are lined wait four minutes for time element relay to function, which will be effective when approach circuit to junction switch is occupied. After operation of time element relay, if signals do not indicate "proceed", Rules 509 and 513 apply.

Chelsea: Signal 4320 on drill track governs eastward movements through crossover to main track only, and will remain dark until crossover switch is opened.

Crescent Lake: Trains moving on main track, in either direction, will move between end of CTC, at west switch yard track No. 1, and end of CTC, at east switch yard track No. 1, by block signals whose indications will supersede the superiority of trains.

RULE 93. Yard limits in which the provisions of Rule 93 will apply, except within CTC limits, are established at the following points:

West MP	East MP
425.67 Klamath Falls	432.66
552.04 " (Merrill line)	
527.50 Crescent Lake	529.17

Klamath Falls: Movements of GNRy trains and engines between end of CTC and junction switch of GNRy will be directed by yardmaster.

Westward trains must not pass absolute signal displaying "Proceed on Diverging Route" at east switch unless flashing white light is displayed in signal on signal bridge at end of CTC.

Yardman's proceed signal will indicate that protection has been provided against first-class trains for trains moving between CTC limits and west end Klamath Falls Yard.

Crescent Lake: Trains entering yard will use track indicated in illuminated indicator located on westward SA signal at east switch for westward trains and on eastward SA signal at west switch for eastward trains.

Units for display of flashing white light located west of west ladder track and east of east ladder track leads and when displayed will authorize movement from yard tracks to beginning of CTC.

RULE 104. The normal position of rigid switches at end of double track and junctions is as follows:

Klamath Falls . . . GNRy main track, for SP main track,
Gilchrist Jct. . . . KNRy main track, for interchange track,

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum Letter	On Signal	Approaching	Authorizes and requires movement as follows:
S	SA	West switch Crescent Lake	Enter passenger siding and remain on siding until authorized by train dispatcher to proceed.
S	SA	East switch Crescent Lake	Enter passenger siding and remain on siding until authorized by train dispatcher to proceed.

SPECIAL INSTRUCTIONS—KIRK SUBDIVISION

RULE 760. CENTRALIZED TRAFFIC CONTROL

Centralized Traffic Control extends from eastward absolute signal at west end of crossover switch, east end of Klamath Falls MP 429.81, to westward absolute signal on signal bridge at fouling point west switch track No. 1 at Crescent Lake, MP 527.23.

Klamath Falls: Eastward absolute signal located on signal bridge at west end of crossover, at east end of yard. Upper unit governs eastward movements on drill track. Lower unit governs eastward movements to main track.

Westward absolute dwarf signal located east of west crossover switch on drill track governs westward movements on drill track.

Absolute signals governing movements on drill track will display proceed indication regardless of track occupancy between these signals unless indication is changed by train dispatcher. Switching movements may be made on drill track so long as signals governing such movements display proceed indication and Rule 775 will not apply. When these signals display stop indication, track between these signals must be cleared immediately.

Chiloquin: Westward absolute signal located on signal bridge at crossover at west end of siding. Upper unit governs westward movements to drill track. Lower unit governs westward movements to main track.

RULE 762. First paragraph of Rule 99-A will apply to westward trains and engines standing between MP 432.66 and end of CTC at Klamath Falls.

RULE 763. GNRy trains will display engine numbers in engine indicators instead of train numbers between Klamath Falls and Chemult.

Train indicators on extra trains will be displayed during time train is at Crescent Lake.

GENERAL REGULATIONS

RULE 825. Instructions for setting hand brakes: Klamath Falls and Klamath Falls Yard:

- Passenger Trains..... {Two brakes on west end,
Two brakes on east end.
- Freight trains or cuts of cars. {Five brakes on west end,
Five brakes on east end.

Staff brakes on freight trains must be set with the assistance of brake club after train has stopped. Any employe releasing any of these brakes, must set an equal number to replace them.

RULE 826. Klamath Falls: Indicator lights located east and west of PFE icing platforms as follows:

West of PFE icing platforms:

(a) On mast to right of track No. 25.

East of PFE icing platforms:

- (b) On stub mast at fouling point track No. 22.
- (c) On cantilever bridge over track No. 24.
- (d) On high mast to right of track No. 25.
- (e) On pole in vicinity of freight office, to right of track No. 25, which repeats indication shown in (d),

govern movements on those tracks as follows:

- Green —Tracks may be used for train or switching movements.
- Yellow —Tracks may be entered and engines, cars or cabooses added or detached, but cars must not be dropped or kicked against cars on those tracks.
- Red —Tracks may be entered but cars on those tracks must not be coupled to or moved. Trains made up on these tracks must not depart until it has been ascertained indicator displays green aspect.
- Not Lighted—Must be considered as displaying most restrictive indication and icing platform foreman must be contacted for instructions before cars are coupled to or moved.

RULE 827. Trains handling logs must stop and crew must inspect load and chains before entering yard at Klamath Falls.

On freight trains between Kirk and Chiloquin, member of train crew will observe track from rear of caboose, (except when helper engine is placed behind caboose), so train may be stopped in event of derailment. Lights placed on rear of caboose will be used at night to assist in observing track.

AIR BRAKE RULES

RULE 2. When switch engine is used on yard tracks at east end of Klamath Falls, handling twenty-five cars or more, air brakes must be cut in and operative on not less than six cars.

RULE 3. Standard brake pipe pressure for GNRy Expediter is 90 pounds.

RULE 17. Sufficient retaining valves must be turned up, in the judgment of engineer, to properly control train handling logs Kirk to Chiloquin.

FREIGHT TRAINS

○**RULE 24.** When terminal test outlined in Air Brake Rule 22 has been made at originating terminal on through freight trains, road test as outlined in Air Brake Rule 24 will not be made at intermediate terminal, Klamath Falls, except when cars are added to the consist. Instead test will be made as outlined in Air Brake Rule 25—Rear end test. Changing crews, caboose and/or engines will not necessitate road test outlined in Air Brake Rule 24.

○**RULE 25.** When terminal test outlined in Air Brake Rule 22 has been made at originating terminal rear end test outlined in Air Brake Rule 25 will be made at intermediate terminal Klamath Falls on freight trains moving through without cars being added to the consist or on which only crews, caboose and/or engines may be changed. Under these conditions rolling inspection by car inspectors or trainmen will be made on freight trains arriving or leaving the intermediate terminal.

MISCELLANEOUS

10. Engines listed are not permitted to operate on tracks shown below:

Class of Engine	Restricted Tracks
All.....	Beyond engine restriction sign at following locations: Wocus—Spur. Chiloquin—Stem of old wye. Lenz—Spur. Yamsay—Logging tracks. Chemult—Oil spur.

11. Load limit (car and contents):
Klamath Falls-Crescent Lake..... 251,000 pounds
Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Klamath Falls.....	95 (Water)
Chiloquin.....	40 (Water)
Kirk.....	3
Lenz.....	35 (Water)
Diamond Lake.....	5 (Water)

SPECIAL INSTRUCTIONS—KIRK SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 3 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT**, and **OTHER MAXIMUM SPEEDS** appearing on page 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP	MP	Column:	1	2	3	MP	MP	Column:	1	2	3
EASTWARD, KLAMATH FALLS TO CRESCENT LAKE:						WESTWARD, CRESCENT LAKE TO KLAMATH FALLS:					
***429.50 to 433.91			50	40	50	528.60 to 523.51			70	50	70
433.91 to 438.65			65	50	65	523.51 to 508.70			60	50	60
438.65 to 439.02			60	50	60	508.70 to 475.00			79	55	70
439.02 to 446.56			65	50	65	475.00 to 471.23			70	50	70
446.56 to 451.81			70	50	70	471.23 to 467.67			65	50	65
451.81 to 454.96			65	56	65	467.67 to 459.03			50	40	50
***454.96 to 459.03			50	50	50	***459.03 to 454.96			50	50	50
459.03 to 467.67			50	40	50	454.96 to 451.81			65	50	65
467.67 to 471.23			65	50	65	451.81 to 446.56			70	50	70
471.23 to 475.00			70	50	70	446.56 to 439.02			65	50	65
475.00 to 508.70			79	55	70	439.02 to 438.65			60	50	60
508.70 to 523.51			60	50	60	438.65 to 433.91			65	50	65
523.51 to 528.60			70	50	70	***433.91 to 429.87			50	40	50
						***429.87 to 429.50			50	25	25

*****PUC Order.**

Light engines on descending grades without dynamic brakes in operation must not exceed speed shown for freight and mixed trains.

No. 377 (PCE), No. 378 (PCE) and GNRy Expediter, when consist contains no restricted cars, may operate at speeds shown in Column 1, except maximum speed must not exceed 60 MPH.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except: Through turnout and siding at Calimus and Mowich	15
Through turnouts and sidings at Algoma, Chiloquin, Kirk, Fuego, Diamond Lake, Chemult and Umli	20
Through turnouts on other than sidings	25
On branches	10
Chiloquin, stem of wye to log pond	10
	6

SPECIAL INSTRUCTIONS—KIRK SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Crescent Lake to Klamath Falls	Klamath Falls to Crescent Lake
DP-4, 7	{ 6000 to 6004, 6017, 6018, 5900 to 5909, 5916, 5917.....	1250	900
DP-5, 6, 8 to 11	{ 6005 to 6016, 6055 to 6058, 5910 to 5915..... 6019 to 6033, 5918 to 5924.....	2875	1625
DP-12	{ 6034 to 6045..... 6046 to 6054.....	.....	.....
DF-1 to 12	{ 6138 to 6461, 8022 to 8303, except..... with 61:16 gear ratio..... with 60:17 gear ratio.....	3175	1825
DF-100	5200 to 5202.....	.....	.....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278.....	4000	2475
DF-109, 111	4903 to 4905, 5250 to 5252.....	.....	.....
DF-114, 116 to 118, 120 to 122, 124, 125	{ 5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493.....	5475	3050
DF-115, 119, 123, 126	{ 5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507.....	6175	3525
DF-200 to 206	5100 to 5120.....	.....	.....
DF-300 to 304	4600 to 4623, 4700 to 4703.....	.....	.....
DF-305, 306	4624 to 4633.....	.....	.....
DF-307	4634 to 4645.....	.....	.....
DF-500, 501	4800 to 4815.....	.....	.....
DF-603, 605, 606, 607, 611	5600 to 5719, 5730 to 5799.....	3400	1950
DF-608 to 610	5720 to 5729.....	.....	.....
DS-1 to 8	1000 to 1032.....	1375	775
DS-9 to 12	1033 to 1090.....	.....	.....
DS-100 to 109, 111, 115, 119	{ 1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567.....	2075	1175
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550.....	2675	1500
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596.....	.....	.....
DS-200, 201	1900 to 1903.....	.....	.....

UNLESS AUTHORIZED BY SUPERINTENDENT ENGINES, EXCEPT GNRV, SPSRY and WPRR ENGINES, WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 93. Yard limits in which the provisions of Rule 93 will apply, are established at the following points:

West MP		East MP
425.67	Klamath Falls.....	432.66
552.04	" (Merrill Line).....	
528.60	Tule Lake.....	530.40
454.93	Alturas.....	461.23
	" (Lakeview Branch).....	460.19
510.63	Lakeview.....	513.05

Klamath Falls: Movements of GNRy trains and engines between end of CTC and junction switch of GNRy will be directed by yardmaster.

Trains and engines approaching Klamath Falls Yard must not pass Signal 5528 unless flashing white light is displayed on mast of this signal. Indication displayed by Signal 5528 must be respected. Flashing white light will authorize movement to east end of track No. 17 where signal must be received from yardman before moving to receiving track.

RULE 99-C. Will apply on Lakeview Branch.

RULE 103-A. Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew.

Tule Lake.....	First crossing west of station over spur track serving Osborne Potato Cellar and Tule Lake Cold Storage, MP 529.40.
Lakeview.....	Western Avenue Crossing, MP 512.50.

RULE 104. The normal position of rigid switches at junctions is as follows:

Klamath Falls...	GNRy main track, for SP main track,
Klamath Falls...	Merrill line, for yard track No. 17,
Klamath Falls...	OC&ERY main track, for yard track,
Alturas.....	Merrill line, for Lakeview Branch.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Klamath Falls: Trains or engines stopped by Signal 4293 may proceed at restricted speed.

Signal 4278 at derail GNRy Bieber line, top unit governs from Bieber line to Cascade line main track; lower unit governs from Bieber line to GNRy line crossing Lake Ewauna.

Signal 4277 at derail from line crossing Lake Ewauna governs to GNRy Bieber line.

Signal 4279 just east of GNRy Lake Ewauna line connection on Cascade line, lower unit governs GNRy Bieber line or SP Merrill line.

Signal 4275.5 at fouling point ladder tracks between tracks Nos. 17 and 18 governs from all ladder tracks to Merrill line.

Junction of GNRy and Cascade line (Signals 4284-4283). Should these signals fail to indicate "proceed" after switches are lined wait four minutes for time element relay to function, which will be effective when approach circuit to junction switch is occupied. After operation of time element relay, if signals fail to indicate "proceed", Rules 509 and 513 apply.

○**RULE 535.** Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
*Alturas..... Klamath Falls Main Track to Drill Track.....	Drill Track
*Alturas..... Wye switch—Lakeview end.....	Wye Track
*Alturas..... East end Drill Track.....	Drill Track
*Alturas..... Klamath Falls Main Track connection to east end Wye Track.....	Main Track

*Equipped with switch-point indicator. Indicator does not indicate track occupancy, and will display green aspect when switch is lined for normal position. When indicator displays red aspect or unlighted, stop must be made and member of crew must examine and ascertain points are in proper position for movement before proceeding.

RULE 680. AUTOMATIC INTERLOCKING

Stronghold: GNRy crossing, MP 524.60.

SPECIAL INSTRUCTIONS—MERRILL SUBDIVISION

GENERAL REGULATIONS

RULE 825. Instructions for setting hand brakes:
Klamath Falls and Klamath Falls Yard:

Passenger trains..... { Two brakes on west end,
Two brakes on east end.
Freight trains or cuts of cars... { Five brakes on west end,
Five brakes on east end.

Staff brakes on freight trains must be set with the assistance of brake club after train has stopped. Any employe releasing any of these brakes, must set an equal number to replace them.

RULE 827. Trains handling logs must stop and crew must inspect load and chains before entering yard at Klamath Falls.

On freight trains between Ambrose and Canby, member of train crew will observe track from rear of caboose, (except when helper engine is placed behind caboose) so train may be stopped in event of derailment. Lights placed on rear of caboose will be used at night to assist in observing track.

AIR BRAKE RULES

RULE 17. Retaining valves will be used on freight and mixed trains on descending grade between Ambrose and Canby as follows:

With four dynamic brakes in operation and handling over 4250 tons—20 retaining valves up to 5500 tons. With over 5500 tons—one retaining valve for each 150 tons in train.

With three dynamic brakes in operation and handling over 3500 tons—20 retaining valves up to 5000 tons. With over 5000 tons—one retaining valve for each 150 tons in train.

With less than three dynamic brakes in operation—one retaining valve for each 50 tons in train and if tonnage exceeds amount of tons specified for each retaining valve, trains may be handled Ambrose to Canby, up to 65 tons per operative brake.

Retaining valves will be used on freight and mixed trains without dynamic brakes in operation on descending grades as follows:

Ambrose to Canby... One valve for each 50 tons in train.

Sufficient retaining valves must be turned up, in the judgment of engineer, to properly control train handling logs Ambrose to Perez.

If tonnage exceeds amount of tons specified for each retaining valves trains may be handled Ambrose to Canby, up to 65 tons per operative brake.

All accessible retaining valves must be turned up on passenger trains Ambrose to Canby.

FREIGHT TRAINS

RULE 24. When terminal test outlined in Air Brake Rule 22 has been made at originating terminal on through freight trains, road test as outlined in Air Brake Rule 24 will not be made at intermediate terminal, Klamath Falls, except when cars are added to the consist. Instead test will be made as outlined in Air Brake Rule 25—Rear end test. Changing crews, caboose and/or engines will not necessitate road test outlined in Air Brake Rule 24.

RULE 25. When terminal test outlined in Air Brake Rule 22 has been made at originating terminal rear end test outlined in Air Brake Rule 25 will be made at intermediate terminal Klamath Falls on freight trains moving through without cars being added to the consist or on which only crews, caboose and/or engines may be changed. Under these conditions rolling inspection by car inspectors or trainmen will be made on freight trains arriving or leaving the intermediate terminal.

RULE 25(a). Rear-end test must be made immediately prior to leaving Ambrose on westward trains, except when not required to stop for other reasons and means of communication are available, rear-end test need not be made provided road engineer is assured by trainmen that air gage in caboose registers normal brake pipe pressure approaching Ambrose.

MISCELLANEOUS

10. Engines listed are not permitted to operate on tracks shown below:

Class of Engine	Restricted Tracks
All engines.....	Alturas—Farmers Exchange spur beyond Fourth St.

Cars or engines must not be moved beyond a point 500 feet from switch on R. L. Smith Lbr. Co. track at west end house track, Canby.

11. Load limit (car and contents):

Alturas-Klamath Falls.....	251,000 pounds
Alturas-Lakeview.....	169,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Klamath Falls.....	95 (Water)
Merrill.....	16 (Water)
Hackamore.....	10
Alturas.....	48 (Water)
Lakeview.....	68 (Water)

SPECIAL INSTRUCTIONS—MERRILL SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 3 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS** appearing on page 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP	MP	Column:	1	2	3	MP	MP	Column:	1	2	3
EASTWARD, ALTURAS TO KLAMATH FALLS:						WESTWARD, KLAMATH FALLS TO ALTURAS:					
456.79 to 458.30			15	15	15	429.50 to 427.00 (553.30)			15	15	15
458.30 to 460.03			30	30	30	553.30 to 552.91			15	15	15
460.03 to 465.26			49	49	49	552.91 to 526.02			49	49	49
465.26 to 467.28			40	40	40	526.02 to 524.70 (GNRy crossing)			40	40	40
467.28 to 478.63			49	49	49	524.70 to 500.75			49	49	49
478.63 to 480.29			30	30	30	500.75 to 497.81			35	35	35
480.29 to 485.05			20	20	20	497.81 to 497.20			25	25	25
485.05 to 497.20			49	49	49						
497.20 to 497.81			25	25	25	497.20 to 485.05			49	49	49
497.81 to 500.75			35	35	35	485.05 to 478.63			20	20	20
500.75 to 524.70			49	49	49	478.63 to 467.28			49	49	49
524.70 to 526.02 (GNRy crossing)			40	40	40	467.28 to 465.26			40	40	40
526.02 to 552.91			49	49	49	465.26 to 460.03			49	49	49
552.91 to 553.30 (427.00)			15	15	15	460.03 to 458.30			30	30	30
427.00 to 429.50			15	15	15	458.30 to 456.79			15	15	15
EASTWARD, ALTURAS TO LAKEVIEW:						WESTWARD, LAKEVIEW TO ALTURAS:					
456.80 to 472.29			..	20	20	512.30 to 472.29			..	25	25
472.29 to 512.30			..	25	25	472.29 to 456.80			..	20	20

Light engines on descending grades without dynamic brakes in operation must not exceed speed shown for freight and mixed trains.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS With Caution Not Exceeding MPH

Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through turnouts on other than sidings	10
On branches	10
Canby, Lumber Company's spur	8

SPECIAL INSTRUCTIONS—MERRILL SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Klamath Falls and Perez Canby and Alturas	Perez to Canby	Canby to Perez	Alturas and Lakeview
DF-1 to 12	6138 to 6461, 8022 to 8303, except..... with 61:16 gear ratio..... with 60:17 gear ratio.....	2200	1600	950	1325
DF-100	5200 to 5202.....	.....	.....	.....	.....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278.....	3025	2150	975	2075
DF-109, 111	4903 to 4905, 5250 to 5252.....	.....	.....	.....	2600
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493.....	3700	2600	1200	1925
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507.....	4275	3075	1475	2525
DF-200 to 206	5100 to 5120.....	.....	.....	.....	.....
DF-300 to 304	4600 to 4623, 4700 to 4703.....	.....	.....	.....	.....
DF-305, 306	4624 to 4633.....	.....	.....	.....	.....
DF-307	4634 to 4645.....	.....	.....	.....	.....
DF-500, 501	4800 to 4815.....	.....	.....	.....	.....
DF-603, 605, 606, 607, 611	5600 to 5719, 5730 to 5799.....	2375	1700	825	.....
DF-608 to 610	5720 to 5729.....	.....	.....	.....	.....
DS-1 to 8	1000 to 1032.....	925	660	285	550
DS-9 to 12	1033 to 1090.....	.....	.....	.....	.....
DS-100 to 109, 111, 115, 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567.....	1425	1025	455	825
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550.....	1825	1300	590	1050
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596.....	.....	.....	.....	1025
DS-200, 201	1900 to 1903.....	.....	.....	.....	.....

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.